

Payen's last days were greatly saddened by the disasters that France suffered as a result of the Franco-Prussian War. In spite of his advanced age he refused to leave the city of Paris on the approach of the Prussian army and displayed a great zeal in the study of all problems relating to the feeding of the besieged and famished city. On May 9, 1871, while attending one of the sessions of the Academy of Medicine he became ill and died three days later (May 12). Few of his friends and comrades were able to pay their last respects to this distinguished savant, for those were the days preceding the establishment of the Paris Commune and civil war raged on the streets of Paris. He was buried in the cemetery at Grenelle.

The biographic material contained in this paper was obtained from the following sources:

- (1) Amer. Journ. Pharm. (ser. 4) 1: 432. 1871. (Anon. obituary notice.)
- (2) Éloge biographique de M. Anselme Payen, by J. A. Barral, in Mémoires Publiés par la Société Centrale d'Agriculture de France, pp. 67-87. 1873.
- (3) Éloge de M. Payen, by Aimé Girard, in Annales du Conservatoire Imperial des Arts et Métiers 9: 317-331. 1873.

A complete list of the scientific papers published by Payen can be found in the Catalogue of Scientific Papers, compiled by the Royal Society of London.

BOTANY.—*Eight new species of Pariana.* JASON R. SWALLEN,
U. S. Bureau of Plant Industry.¹

Pariana is an anomalous genus of grasses that inhabits tropical forests and forest borders from Panama to Brazil and Peru. Because of the paucity of material in herbaria, the species have been considered as rare. The author, however, in 1933-34 observed these grasses growing rather commonly in northern Brazil, in places even completely covering the ground over rather large areas. The inflorescences are frequently entirely hidden by the foliage, which may account for the earlier collectors overlooking them. Tutin² recently revised the genus recognizing 23 species. Since then, one has been described from Ecuador by Pilger.³ The eight species herein described bring the total number to 32.

***Pariana nervata* Swallen, sp. nov.**

Perennis; culmi uniformes e rhizomatibus crassis erecti, 90-130 cm alti; vaginae inferiores internodiis longiores vel breviores laminis obsoletis, superiores internodiis multo longiores foliosae, auriculatae, sparse fimbriat-

¹ Received October 26, 1939.

² *Revision of the genus Pariana.* Journ. Linn. Soc. Bot. 50: 337-362. 1936.

³ Notizbl. Bot. Gart. Berlin 14: 323. 1939.

ae, glabrae vel sparse pilosae; ligula 3 mm longa, truncata; laminae 15–26 cm longae, 4–6 cm latae, acuminatae, infra scabrae; inflorescentia pendula, 20 cm longa, 1.3 cm lata; spiculae masculae 6.5–8 mm longae, pedicellis occultis, 3 mm longis minute pubescentibus; glumae 5–6 mm longae, 1.5–2.5 mm latae, 2–3-nerves, abrupte acutae, scaberulae, marginibus ciliatis; lemma 6.5–8 mm longum, 3.5–4 mm latum, 5-nerve, subobtusum, scabrum; spiculae femineae uniseriatae; glumae 8 mm longae, 3-nerves, acutae, scaberulae, reticulatae; fructus 6 mm longus apice scaber.

Perennial, with leafy fertile culms; culms 90–130 cm tall, erect from rather short thick rhizomes; lower sheaths longer or shorter than the internodes, the blades obsolete, the upper blade-bearing ones much longer than the internodes, somewhat crowded, auriculate, sparsely fimbriate, glabrous or sparsely pilose; ligule 3 mm long, truncate; blades 15–26 cm long, 4–6 cm wide, acuminate, the lower surface scabrous, the upper glabrous; inflorescence drooping, 20 cm long, 1.3 cm thick; staminate spikelets 6.5–8 mm long, the pedicels hidden, 3 mm long, minutely pubescent; glumes 5–6 mm long, 1.5–2.5 mm wide, 2–3-nerved, abruptly acute, scaberulous, the margins ciliate; lemma 6.5–8 mm long, 3.5–4 mm wide, 5-nerved, subobtusum, scabrous; pistillate spikelets in one row; glumes 8 mm long, 3-nerved, acute, scaberulous, reticulate; fruit 6 mm long, scabrous at the apex.

Type in the U. S. National Herbarium, no. 1613658, collected at edge of forest, Mosqueira, near Belem, Para, Brazil, June 15, 1934, by Jason R. Swallen (no. 4873).

This species of *Pariana* differs from all the others in the conspicuously 5-nerved lemma of the staminate spikelets.

***Pariana ovalifolia* Swallen, sp. nov.**

Perennis; culmi 135 cm alti, basi decumbentes; vaginae inferiores elongatae internodiis breviores laminis valde reductis, superiores internodiis multo longiores, glabrae, reticulatae, in ore sparse fimbriatae; ligula truncata 2–4 mm longa; laminae 17–24 cm longae, 6–7 cm latae, acuminatae, infra pubescentes, supra glabrae, petiolis 5–8 mm longis glabris; inflorescentia pendula, 16 cm longa; spiculae masculae pedicellis 3 mm longis, pubescentibus; glumae 2 mm longae, 1–2-nerves, acutae, pubescentes, marginibus ciliatis; lemma 5–6 mm longum, 2.5–3 mm latum, subobtusum, dense pubescens; spiculae femineae 7 mm longae; glumae aequales, 3-nerves, pubescentes; lemma 6 mm longum, acutum, glabrum apice pubescens.

Perennial; culms about 135 cm tall, erect from a decumbent base, the fertile one leafy toward the summit, bladeless below, glabrous; lower sheaths elongate, shorter than the internodes, the upper crowded, longer than the internodes, glabrous, reticulate-veined, occasionally bearing a few fimbriae at the mouth; ligule truncate, 2–4 mm long; blades 17–24 cm long, 6–7 cm wide, the two uppermost reduced, narrowed toward the base, acuminate, glaucous and pubescent on the lower surface, green and glabrous on the upper, the petiole 5–8 mm long; inflorescence slender, drooping, 16 cm long, the whorls of spikelets distant, not overlapping in the lower part, gradually becoming more crowded toward the summit, but the staminate florets never obscuring the pedicels of the staminate spikelets in the next higher whorl; staminate spikelets 5–6 mm long, the pedicels 3 mm long, pubescent, especially at the base and on the margins; glumes 2 mm long, 1 mm broad at the base, 1 or sometimes 2-nerved, acute, more or less pubescent, the margins ciliate; lemma 5–6 mm long, 2.5–3 mm wide, subobtusum, densely pu-

bescent; fertile spikelet 7 mm long; glumes thin, equal, 3-nerved, pubescent; lemma 6 mm long, acute, pubescent toward the tip, otherwise glabrous.

Type in the U. S. National Herbarium, no. 1614216, collected in forest borders 35 kms north of Monte Alegre, Pará, Brazil, January 28–February 1, 1934, by Jason R. Swallen (no. 3379).

Pariana ovalifolium belongs to the *Foliosae* group in which the fertile culms are leafy. It is most closely related to *P. lunata* Nees, which is a much smaller plant, about half as high, with smaller lanceolate rather than oval blades, which are broad and rounded at the base.

***Pariana aurita* Swallen, sp. nov.**

Perennis; culmi biformes, erecti vel basi decumbentes. Culmi steriles ad 80 cm alti in parte superiore foliosi, scabri; vaginae inferiores internodiis multo breviores, superiores internodiis multo longiores, carinatae, auriculatae; ligula 8–15 mm longa; laminae 15–28 cm longae, 3.5–5.8 cm latae, acuminatae vel subattenuatae, glabrae vel scaberulae, petiolis crassis, 7–10 mm longis, pubescentibus. Culmi fertiles graciles, 50 cm alti, glabri; vaginae internodiis longiores laminis obsoletis; ligula curta; inflorescentia 12 cm longa, gracilis, pendula; spiculae masculae 4 mm longae, pedicellis 2–4 mm longis, pubescentibus vel pilosis, marginibus ciliatis; glumae 2.5–3 mm longae, angustae, acuminatae, 1–2-nerves; lemma 4 mm longum, 1.5 mm latum, reticulatum, scaberulum; antherae ± 12 , lineares, 2.5 mm longae; spiculae femineae biseriatae 6 mm longae; glumae 1-nerves, acutae, pubescentes, marginibus ciliatis; lemma 5 mm longum, apice minute pubescens.

Perennial; culms erect or somewhat decumbent at the base. Sterile culms 80 cm tall, leafy in the upper fourth; lower sheaths bladeless, much shorter than the internodes, rounded on the back, the upper ones crowded, much longer than the internodes, distinctly keeled, glabrous; ligule 8–15 mm long, joined at the base with the conspicuous auricles of the sheaths; blades 15–28 cm long, long-acuminate, narrowed toward the base, glabrous or scaberulous; fertile culms 50 cm tall, the bladeless sheaths mostly longer than the internodes, rounded on the back, glabrous; ligule very short or wanting; inflorescence drooping, 12 cm long, the whorls of spikelets scarcely overlapping; staminate spikelets 4 mm long, the pedicels conspicuous, 2–4 mm long, sometimes fused toward the base, pubescent or pilose, the margins ciliate; glumes 2.5–3 mm long, usually 1 or sometimes 2-nerved, acuminate, rather narrow at the base, glabrous or minutely pubescent, the margins very shortly ciliate; lemma 4 mm long, 1.5 mm wide, finely reticulate-veined, scaberulous; anthers ± 12 , linear, 2.5 mm long; pistillate spikelet 6 mm long, the glumes acute, 1-nerved, pubescent, narrower than the mature fruit; fruit 5 mm long, the lemma minutely pubescent near the tip and on the lateral nerves.

Type in the U. S. National Herbarium, no. 1539376 collected in dense forest at the mouth of the Rio Santiago, above Pongo de Manseriche, Department Loreto, Peru, November 17, 1931, by Ynes Mexía (no. 6116).

P. aurita is a very striking species, which is probably most closely related to *P. gracilis* Doell, resembling it in the slender inflorescence of rather distant whorls of spikelets. However, *P. gracilis* has fewer, much smaller blades 10–15 cm long, and a ligule only 2–2.5 mm long.

***Pariana distans* Swallen, sp. nov.**

Perennis; culmi diffformes e rhizomatibus erecti, scabri. Culmi steriles 40 cm alti in parte superiore foliosi; vaginae inferiores laminis obsoletis inter-

nodiis breviores, superiores internodiis longiores, pubescentes; ligula truncata, 2 mm longa, pubescens; laminae 10–15 cm longae, 1.8–2.5 cm latae, lanceolatae, acuminatae, infra scaberulae supra pubescentes. Culmi fertiles 40 cm alti, infra inflorescentiam dense pubescentes; vaginae internodiis longiores, glabrae, laminis obsoletis; inflorescentia 9.5 cm longa, erecta, verticillis spicularum remotis; spiculae masculae 7 mm longae pedicellis 3 mm longis, dense pubescentibus; glumae 4–5 mm longae, 3-nerves, scabrae, marginibus ciliatis; lemma 7 mm longum, 2.5 mm latum, pubescens; spiculae femineae incognitae.

Perennial; culms numerous, erect from rhizomes, about 40 cm tall, scabrous. Sterile culms leafy toward the summit, the lower sheaths bladeless; lowermost sheaths short, longer than the internodes, the one of the mid-culm elongate, shorter than the internode, the upper bladebearing sheaths again longer than the internodes, glabrous or minutely pubescent; ligule truncate, about 2 mm long, pubescent; blades oblong-lanceolate, 10–15 cm long, 1.8–2.5 cm wide, acuminate, shortly soft pubescent on the lower surface, scaberulous above, the petiole 2 mm long, pubescent. Fertile culms densely pubescent below the inflorescence; sheaths all longer than the internodes, bladeless, the uppermost one elongate, glabrous; inflorescence 9.4 cm long, erect, the whorls of spikelets rather distant, the staminate florets scarcely reaching the base of the pedicels of the staminate spikelets of the whorl above; pedicels of the staminate spikelets 3 mm long, densely pubescent, more or less fused together; glumes 4–5 mm long, 3-nerved, acute, scabrous, the margins shortly ciliate; lemma 7 mm long, 2.5 mm wide, pubescent; pistillate spikelet undeveloped.

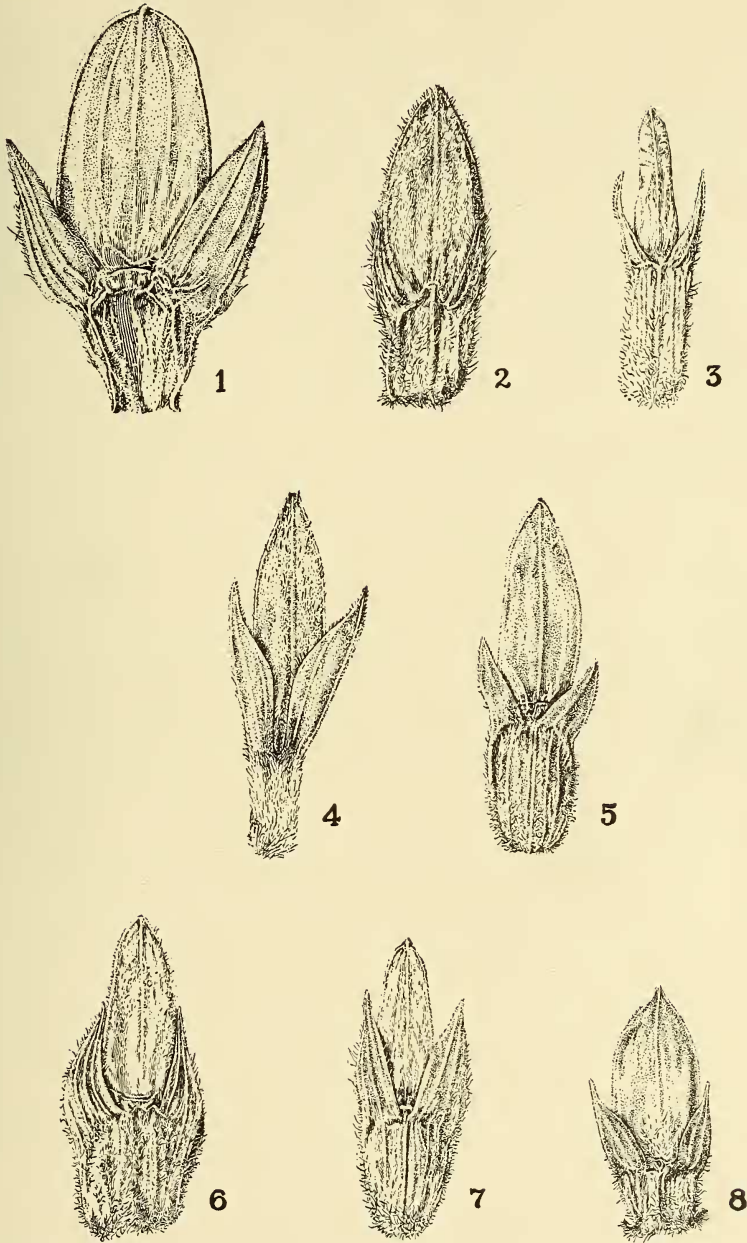
Type in the U. S. National Herbarium, no. 1614187, collected in forest borders, Santarem, Pará, Brazil, January 19–26, 1934, by Jason R. Swallen (no. 3286).

This species differs from all the others in the *Graciles* group in the 3-nerved glumes of the staminate spikelets and the longer staminate lemma. In the other species of this group the glumes of the staminate spikelets are only 1-nerved (rarely 2-nerved), and the lemmas are not more than 5.5–6 mm long.

Pariana ligulata Swallen, sp. nov.

Perennis; culmi diffformes caespitosi, erecti, basi decumbentes. Culmi steriles 70–95 cm alti, in parte superiore foliosi; vaginae inferiores internodiis breviores laminis obsoletis, superiores internodiis multi longiores, carinatae; ligula 6–10 mm longa, firma, obtusa vel truncata; laminae 15–32 cm longae, 3–4 cm latae, subattenuatae, reticulatae, petiolis crassis, 6–10 mm longis glabris vel minute pubescentibus. Culmi fertiles 50–60 cm alti, laminis obsoletis; vaginae internodiis longiores; inflorescentia 12 cm longa, pendula, parte inferiore in vagina suprema inclusa, verticillis spicularum approximatis; spiculae masculae 5–6 mm longae, pedicellis 4–5 mm longis sparse pubescentibus; glumae 1.5–2 mm longae, 1–2-nerves, triangulae, acutae, scabrae; lemma 5–6 mm longum, 2–2.5 mm latum, 3-nerve, acutum, reticulatum, scabrum; antherae lineares, 3 mm longae; spiculae femineae 9 mm longae; glumae 1–3-nerves acutae vel subacuminatae, scabrae; lemma 7 mm longum, acutum, subapiculatum.

Perennial; culms in rather large spreading clumps, erect from a decumbent base. Sterile culms 70–95 cm tall, leafy in the upper half; sheaths elongate, the lower ones a little shorter than the internodes, the upper ones longer than the internodes but scarcely crowded, keeled toward the summit,



Figs. 1-8.—Front view of staminate spikelets of new species of *Pariana*, showing the pedicel, glumes, and lemma, $\times 5$: 1, *P. nervata*; 2, *P. ovalifolia*; 3, *P. aurita*; 4, *P. distans*; 5, *P. ligulata*; 6, *P. sociata*; 7, *P. modesta*; 8, *P. velutina*. All drawings made from the type specimens by Mrs. Frances C. Weintraub.

reticulate-veined; ligule 6–10 mm long, firm, obtuse or truncate; blades 15–32 cm long, 3–4 cm wide, more or less plaited, the transverse veins conspicuous on the lower surface, acuminate, narrowly rounded at the base, glabrous on both surfaces; petiole 6–10 cm long, glabrous or minutely pubescent. Fertile culms 50–60 cm tall, nearly hidden under the foliage of the sterile culms; sheaths somewhat inflated, all longer than the internodes, bladeless or sometimes with blades 1–2.5 cm long; inflorescence drooping, about 12 cm long, the whorls of spikelets distant, scarcely overlapping; staminate spikelets 5–6 mm long, the pedicels 4–5 mm long, sparingly pubescent; glumes 1.5–2 mm long, triangular, acute, 1 or sometimes 2-nerved, scabrous; lemma 5–6 mm long, 2.5 mm wide, strongly 3-nerved, reticulate-veined above, scabrous; anthers about 3 mm long; fertile spikelet 9 mm long, the glumes 1-nerved, scabrous or pubescent at the base; fruit 7 mm long, abruptly acute, almost apiculate.

Type in the U. S. National Herbarium, no. 1613673, collected in forest at Boa Vista, Rio Tapajos, Pará, Brazil, January 7–13, 1934, by Jason R. Swallen (no. 3177).

P. ligulata differs from all other species in the *Graciles* group in the large pistillate spikelets and the long comparatively narrow plaited blades.

***Pariana sociata* Swallen, sp. nov.**

Perennis. Culmi diffformes e rhizomatibus erecti vel basi decumbentes. Culmi steriles ± 40 cm alti, glabri, in parte superiore foliosi; vaginae glabrae vel in parte superiore pubescentes, inferiores internodiis multo breviores, superiores internodiis multo longiores in ore dense fimbriatae pilis 10–15 mm longis; laminae 8.5–11 cm longae, 1.7–2.7 cm latae, acuminatae, infra minute pubescentes, supra scaberulae, marginibus serratis; ligula truncata 1 mm longa. Culmi fertiles 30 cm alti; vaginae internodiis longiores, inflatae, glabrae vel minute pubescentes, in ore dense fimbriatae, laminis obsoletis vel ad 2 cm longis; inflorescentia 7–8 cm longa, 1–1.3 cm lata, erecta, verticillis spicularum approximatis; spiculae masculae 5 mm longae, pedicellis 4 mm longis dense pubescentibus; glumae 2–3 mm longae, 1–3-nerves, acuminatae, pubescentes, marginibus ciliatis; lemma 5 mm longum, 2.5–3 mm latum, acutum, dense pubescens; antherae ± 8 , lineares, 2 mm longae; spiculae femineae uniseriatae, 6 mm longae; glumae acutae, 3-nerves, aequales, pubescentes; lemma 5 mm longum, 3 mm latum, acutum, glabrum.

Perennial; culms erect from a more or less decumbent rhizomatous base, glabrous. Sterile culms leafy toward the summit, about 40 cm tall; lower sheaths much shorter than the internodes, bladeless or the blades much reduced, the upper ones crowded, keeled at least toward the summit, densely fimbriate in the mouth, the hairs 10–15 mm long; ligule truncate, 0.5 mm long; blades 8.5 cm long, 1.7–2.7 cm wide, rather abruptly acuminate, rounded at the base, minutely pubescent on the lower surface, scaberulous above, the margins finely but distinctly serrate, the petiole about 1 mm long, pubescent. Fertile culms about 30 cm tall; sheaths inflated, all longer than the internodes, bladeless or sometimes the blade as much as 2 cm long, 1 cm wide, sparsely to rather densely fimbriate at the mouth; inflorescence 7–8 cm long, 1–1.3 cm wide, stiffly erect, the staminate spikelets about half overlapping the pedicels of the staminate spikelets in the whorl above; staminate spikelets 5 mm long, somewhat spreading; pedicels 4 mm long, densely pubescent; glumes 2–3 mm long, 1–3-nerved, acuminate, pubescent, the margins ciliate; lemma 5 mm long, 2.5–3 mm wide, short but densely pubescent; anthers 2 mm long, pistillate spikelet 6 mm long, the

glumes acute, 3-nerved, pubescent; fruit 5 mm long, 3 mm wide, acute, glabrous.

Type in the U. S. National Herbarium, no. 1613672 collected in open sandy forest between Caxias and Barra do Corda, Maranhão, Brazil, February 18-26, 1934, by Jason R. Swallen (no. 3599).

P. sociata is similar in appearance to *P. zingiberina* Doell, which differs in having thicker, shorter blades, almost no fimbriae at the mouth of the sheaths, and smaller glabrous staminate spikelets.

***Pariana modesta* Swallen, sp. nov.**

Perennis; culmi diffformes, graciles e rhizomatibus erecti. Culmi steriles 15-35 cm alti, in parte superiore foliosi; vaginae glabrae, inferiores internodiis breviores, superiores internodiis multo longiores in ore fimbriatae; laminae 3-7.6 cm longae, 5-14 mm latae, lanceolatae, minute pubescentes. Culmi fertiles 20 cm alti; vaginae internodiis breviores inflatae, glabrae vel minute pubescentes, laminis obsoletis; inflorescentia 3-4 cm longa, erecta, verticillis spicularum approximatis; spiculae masculae 5 mm longae, pedicellis 4 mm longis; glumae 3-4 mm longae, 3-nerves acutae vel subacuminatae basi latae, pubescentes, marginibus ciliatis; lemma 4.5-5 mm longum, 2 mm latum, 3-nerve, acutum, scaberulum vel pubescens; palea acuta lemma aequans; antherae ± 20 , 1-1.5 mm longae; spiculae femineae 6 mm longae; glumae aequales, 1-3-nerves, acuminatae, pubescentes; lemma 5 mm longum, acutum.

Perennial; culms slender, erect from rhizomes. Sterile culms 15-35 cm tall, leafy toward the summit, glabrous; lower sheaths much shorter than the internodes, the upper ones crowded, much longer than the internodes, conspicuously fimbriate at the mouth; ligule very short, thick; blades 3-7.6 cm long, 5-14 mm wide, thin, lanceolate, minutely pubescent on both surfaces, the pubescence sometimes obscure. Fertile culms 20 cm tall, glabrous or minutely pubescent; sheaths all shorter than the internodes, inflated, bladeless, never fimbriate; inflorescence 3-4 cm long, bearing 3 or 4 rather distant whorls of spikelets, the whorls scarcely overlapping exposing the pedicels of the staminate spikelets; staminate spikelets 5 mm long, the pedicels 4 mm long, densely pubescent toward the base becoming nearly glabrous at the summit; glumes 3-4 mm long, strongly 3-nerved, acute or subacuminate, broad at the base, more or less pubescent, the margins ciliate; lemma 4.5-5 mm long, 2 mm wide, 3-nerved, abruptly acute, scaberulous and more or less pubescent; palea acute, equaling or slightly exceeding the lemma; anthers about 20, 1-1.5 mm long; pistillate spikelet 6 mm long, the glumes equal, acuminate, 1-3-nerved, pubescent, the lemma 5 mm long, acute, rather broad, almost entirely enclosing the palea.

Type in the U. S. National Herbarium, no. 1613666, collected in high open forest between Caxias and Barra do Corda, Maranhão, Brazil, February 18-26, 1934, by Jason R. Swallen (no. 3544).

In the region where the type was collected, this species was very abundant, in some cases being the dominant herbaceous plant in moist open woods called "Carasco." The fertile culms were never plainly evident being obscured under the foliage of the sterile culms, the young ones even hidden in the ground cover of old leaves. Only a small proportion of the plants had fertile culms at the time the specimens were collected.

DISTRIBUTION: Open forests, east-central Maranhão, Brazil. Between Caxias and Barra do Corda, *Swallen* 3597, 3544 (type); Barra do Corda to Grajahu, *Swallen* 3631; Carolina to San Antonio de Balsas, *Swallen* 4132.

This species was found growing with *P. sociata* and resembles it in several ways, especially in having thin blades, numerous fimbriae, and a short erect inflorescence. It differs, however, in being a much smaller plant with short narrow blades, short slender inflorescences of distant whorls of smaller glabrous staminate florets, the glumes of which are very broad at the base, strongly 3-5-nerved.

Pariana velutina Swallen, sp. nov.

Perennis; culmi diffformes basi adscendentes. Culmi steriles 45-50 cm longi infra nodos dense pubescentes; vaginae inferiores obsoletae, mediae elongatae internodiis breviores laminis obsoletis, superiores foliatae internodiis multo longiores, auriculatae, fimbriatae, carina dense pubescente; laminae 12-16 cm longae, 2-4.6 cm latae, lanceolatae vel ovato-lanceolatae, acuminatae, infra dense pubescentes, supra glabrae nervo medio dense hirtello. Culmi fertiles graciles, 25 cm longi, infra inflorescentiam dense pubescentes; vaginae 2 vel 3, internodiis breviores, inflatae, glabrae; alaminis obsoletis; inflorescentia erecta 6 cm longa; spiculae masculae 4.5 mm longae, pedicellis occultis 2-2.5 mm longis pilosis basi villosis; glumae 2-2.5 mm longae, 1 mm latae, 1-2-nerves, acutae vel acuminatae, scabrae; lemma 4.5 mm longum, 1.5-2 mm latum, 3-nerve, acutum, scabrum, basi pubescens; antherae 2.5 mm longae; spiculae femineae uniseriatae; glumae 5 mm longae, 1-3-nerves, acutae vel subobtusae, pubescentes; fructus 5 mm longus, 3 mm latus, glaber, superne pubescens.

Perennial; culms biform, erect from an ascending base. Sterile culms 45-50 cm long, densely pubescent below the nodes; lowest sheaths obsolete, the median one elongate, shorter than the internodes, the blades obsolete, the upper leaf-bearing ones crowded, much longer than the internodes, auriculate, fimbriate, densely pubescent on the keel; blades 12-16 cm long, 2-4.6 cm wide, lanceolate or ovate-lanceolate, acuminate, softly pubescent on the lower surface, glabrous on the upper surface, the midnerve densely hirtellous. Fertile culms slender, 2.5 cm long, densely pubescent below the inflorescence; sheaths 2 or 3, shorter than the internodes, inflated, glabrous, the blades obsolete; inflorescence erect, 6 cm long; staminate spikelets 4.5 mm long, the pedicels hidden, 2-2.5 mm long, pilose, densely villous at the base; glumes 2-2.5 mm long, 1 mm wide, 1-2-nerved, acute or acuminate, scabrous; lemma 4.5 mm long, 1.5-2 mm wide, 3-nerved, acute, scabrous, pubescent toward the base; anthers 2.5 mm long; pistillate spikelets in one row; glumes 5 mm long, 1-3-nerved, acute or subobtusate, pubescent; fruit 5 mm long, 3 mm wide, glabrous, pubescent toward the summit.

Type in the U. S. National Herbarium, no. 1458908, collected at Gamitanacocha, Río Mazán, Department Loreto, Peru, altitude 100-125 meters, by Jose M. Schunke (no. 164).

Pariana trichosticha Tutin is the only other species that has the midnerve of the blades hirtellous on the upper side but differs from *P. velutina* in having glabrous blades, densely pubescent sheaths, and longer glumes on the pistillate spikelet (7 mm long), which extend beyond the fruit.